

517, 697

Rec'd PCT/PTO 13 DEC 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



10/517697



(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 03/106888 A1

(51) International Patent Classification⁷: F17D 3/00, 5/00

(21) International Application Number: PCT/GB03/02485

(22) International Filing Date: 10 June 2003 (10.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0213635.6 13 June 2002 (13.06.2002) GB

(71) Applicant (for all designated States except US): ALPHA THAMES LTD [GB/GB]; Essex House, Station Road, Upminster, Essex RM14 2SU (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): APPLEFORD, David, Eric [GB/GB]; 5 Greenview Cottages, Theydon Bois, Epping, Essex CM16 7JD (GB). LANE, Brian, William [GB/GB]; 41 Rattwick Drive, Canvey Island, Essex SS8 8NF (GB). SMITH, Ronald, Geoffrey, William [GB/GB]; 99 Boxfield Green, Chells Manor Village, Stevenage, Hertfordshire SG2 7DS (GB). ANDREWS, Nicholas, John, Abbott [GB/GB]; 15 Aspen Way, Brandon Groves, South Ockendon, Essex RM15 6TX (GB).

(74) Agents: JOHNSTONE, Douglas, Ian et al.; Baron & Warren, 19 South End, Kensington, London W8 5BU (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

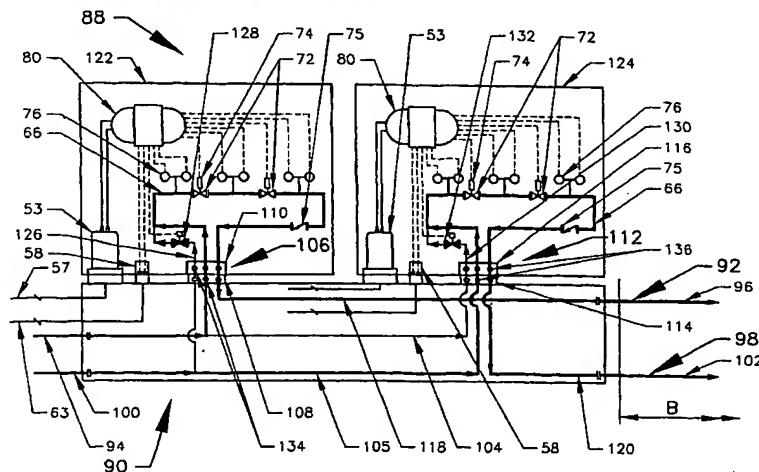
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,

[Continued on next page]

(54) Title: PRESSURE PROTECTION SYSTEM



(57) Abstract: A pressure protection system (32) has a docking manifold (44) to which an upstream portion (36) and a downstream portion (38) of a pipeline (34) are connected. Also connected to the docking manifold (44) is a retrievable module (64) which has a conduit circuit (66) that connects the upstream and downstream portions of the pipeline (34) enabling fluid to flow between the two portions (36, 38). The conduit circuit contains two fail-safe valves (72) which are controlled by a control module (80) within the retrievable module, and two pressure transmitters (76) co-operable with the control module (80). When wither pressure transmitter (76) senses fluid pressure in the conduit circuit (66) to be above a threshold value then it causes the control module (80) to effect closure of the valves (72) preventing the pressure rise from reaching the downstream portion (38) of the pipeline (34).



WO 03/106888 A1